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ABSTRACT

The purpose of this study was to demonstrate how an early assessment of self-competency can be combined with an effective program for preventing maladaptive affective (self-competency) and academic skills. Eleven third graders participated in this study of three interventions. Feedback of multisource data, teacher praise (positive reinforcement), and parental support were used with students selected from sources derived from the Barclay Classroom Climate Inventory (BCCI). The data from these selected students were analyzed by the Mann-Whitney U one-tailed test. Results showed that the interventions improved students' self-competency, raised their group nominations, and changed their attitudes toward school. (Author/CS)

INFLUENCE OF FEEDBACK, TEACHER PRAISE, AND PARENTAL SUPPORT ON SELF-COMPETENCY OF THIRD GRADERS[1]

Lonnie H. Davis[2] Judith L. Flaherty[3] Cristina I. Igelmo and William E. Stilwell[5]
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Teachers and peer groups have the power to influence the development of a child's self concept. Purkey (1970) and Moustakas (1966) have argued that the school environment and more specifically the attitude and behavior of the teacher seem to be important elements shaping the child's self-concept outside the family setting. Indeed, Morse (1964) measured the shifts in self-concepts of elementary school children in over 600 cases and found a gradual decrease between grades three and eleven. That is, 84 percent of the third graders were proud of their work in school, compared with 53 percent of the eleventh graders. Preventing such an apparent loss of self-confidence challenges counselors, school psychologists, and school social workers. A negative (decreased) self-concept seems to be related to feelings of helplessness (Rogers & Dymond, 1954), depression and isolation (Coopersmith, 1967) and tend to hamper school adjustment and academic progress (Purkey, 1970). Such a picture points to the need for marshalling the available social influences to prevent a reduction of self-competency skills.

Previous studies suggest that parents as well as teachers and peers exert a strong influence upon each child's self-competency development and adjustment to the school environment. Costello (1964) found that over-all, regardless of the task or the ability of the students, praise produces more improvement in performance than blame. Such a program of student self-competency support can occur within the normal classroom teaching (Staines, 1958). Still a real power

in the student's self development of the contribution of the parents (Helper, 1958). Indeed, Kifer (1973) found that in a group of students from ages seven to 12 when the parents supported and had a positive warm regard for their children self-competency did not decline. Further he reports that both low and high achieveing students whose parents provided support continued to develop their self-competencies more so than did students whose parents failed to support their children.

The purpose for this study is to demonstrate how an early assessment of self competency can be combined with an effective program for preventing maladaptive affective (self-competency) and academic skills. The earlier work by Barclay (1966) has demonstrated that low peer ratings joined by low self-competency ratings seem to result in academic and affective maladjustment. More recently, Barclay (1967) experimentally assessed the effects of special student roles, positive teacher reinforcement, and changing the teacher on elementary students' social interaction. He found that self-competency was positively influenced both by assigning special student roles and by changing the teacher. Also discussing the child's vocational plans appeared to have a desirable effect on self-competency for boys but not girls (Stilwell, Brown & Barclay, 1973). Finally, Church (1972) found that feedback of information from peer judgments, teacher ratings, and self-reports had a positive influence upon group nominations and teacher ratings for both boys and girls. Accordingly, in this study we tried to marshall the influences of feedback, teacher praise, and parental involvement on raising self-competency. The major question asked in this study was: Will students receiving the combined treatments show improvement on Barclay Classroom Climate Inventory scores?

METHOD

Subjects

The study was conducted during a three week period from April 5 to April 26, 1973, at a parochial elementary school in the Lexington area. The student population in the school represented the socioeconomic spectrum in the area. About 275 students were enrolled in the first six grades (11 classrooms) of the 1-8 school. One classroom taught by a teacher in her fourth year participated in this study. Eleven selected students provided data for this study (7 boys and 4 girls).

The BCCI printout was used to identify the students selected for the interventions. Self-competency was suggested as a problem area for 11 of the students in the classroom. Further, the printout indicated these students rated themselves lower than their peer group had rated them (low self/high peer). Also eight of these students had an unfavorable attitude toward school (low CCI).

Treatments

Three different interventions were planned to help the selected students develop their self-competency. The first two interventions were started at the same time. All three of the interventions were running concurrently during the last two weeks of the study. The first three authors made up a learning development team and cooperated with the classroom teacher in carrying out the interventions.

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suggested that a child with a low self-concept might be highly susceptible to change by positive information of how others see him. Accordingly, the learning team, following the example of Church (1972), pointed out and discussed the positve aspects of each child's printout.

A later modification to the BCCI printout has reduced the teacher/parent/learning consultant version and has added a special printout addressed to the child himself. Exactly how this child's version will increase the impact from feedback of multisource data remains to be explored empirically.

Teacher praise (reinforcement). An effort was made to increase the amount of attention given by the teacher to each of the selected students (Moustakas, 1966). The teacher was given a checklist for recording the special attention she gave daily to the students. For example, the teacher might assign some task which the student performed in the classroom and for which she could give justifiable reinforcement upon its completion. It was important that peers be aware of the task accomplishments and the reinforcements.

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The participating parents were asked to give special social reinforcement to their child in five areas each day for a period of two weeks. A checklist for the period was given to each parent. The five areas were: getting up in the morning and getting dressed, table manners, arrival home from school, school work, and going to bed. The parents were asked to give some kind of reinforcement or attention to the child when he/she performed well in each of

these areas. Preferably, the parents would record their reinforcement on the checklist once a day, indicating that they had been reinforcing their child regularly. The parents were asked not to invent new tasks that the child was not ordinarily expected to perform. The goal was natural parental support in each of these five areas (Patterson, 1973).

Criterion measures.

Pre and post intervention criterion measures were collected in mid-February and in late May. Computer scoring and processing took about three weeks. A second measure was used by the team to monitor student progress within the interventions.

1. Barclay Classroom Climate Inventory (BCCI). The Inventory collects self-reported data on self-competency skills, vocational awareness and preferred reinforcers, peer group ratings, and teacher judgments. The BCCI requires about 75 minutes for administration to the entire classroom. The multitriat multisource inputs are scored and integrated by a computer. Each child is described in a narrative prepared by the computer for the teacher, principal, parent or learning team member, located in two grids (teacher judgments versus peer ratings and self-competency judgments versus peer ratings), and assessed for "suggested problem areas". In addition a letter is prepared for each child by the computer. Although 36 scales are obtained (Barclay, Barclay & Stilwell, 1972; Barclay, Stilwell & Barclay, 1972), only five scores were involved in this study. The five scores are briefly described as follows:

(a) STOT, self-competency total score, represents the number of "yes" responses to such statements as "I like to ask questions" and "I can paint pictures";

(b) GTOT, group nominations total score, is the number of times classmates nominated the child in response to such questions as "Who

can write poetry?" and "Who knows how to listen to others?";

(c) TR+, teacher rating positive, is the total number of positive adjectives selected by the teacher to describe the student's personal adjustment, social adjustment, and effort in school;

(d) TR-, teacher ratings negative, is the total number of negative adjectives selected by the teacher for the same three areas; and,

(e) CCI, attitude toward school, is the score which represents the degree of satisfaction the child has with the school situation. A high score suggests that the child is happy with the school, reinforced by his teacher and others, and feels he has some control over the situation.

2. BCCI Q-sort. A Q-sort developed to specify elements of each BCCI "suggested problem area" (Barclay, 1973a) was administered prior to any intervention, one week after the first intervention began, and after completion of all interventions.

The Q-sort consisted of 17 cards each describing a specific behavior for a person who has a low self-competency (e.g., "saying the wrong thing" or "worrying about how I look"). The student is asked to judge which card-statement is "a very big problem almost all of the time" (one card chosen), which statements are "a big problem most of the time" (two cards chosen), which are a "problem once in a while" (three cards chosen) and which "sometimes this bothers me" (four cards chosen). The specific problems are given weights from four (a very big problem) to one (sometimes).

The first and second administrations of the Q-sort were individually conducted by a member of the team. The third administration was given to the entire class to avoid having the 11 selected students feel particularly different from their classmates.

Data Analysis

Using the pre- scores as a base and the post-intervention scores as a criterion, gain scores for each student were determined. Mann-Whitney U tests were performed on the appropriate scores (Siegel, 1956). The Q-sort scores were analyzed separately for the learning team's use.

Limitations

In an exploratory study such as this one, important limitations influence the generalizability of the results. First, we were unable to select randomly our school or our students. Indeed, the selection of students whose BCCI self competency scores were low is an extremely important influence. Second, the groups for the study were small. The likelihood of single subject influence on the results was present. Hence, the results should be limited to schools whose climate is similar to the one selected for this study (i.e., one to 25 teacher-student ratio, parochial, etcetera).

RESULTS

For this study we used the Mann-Whitney U test which was performed on each of the six gain scores for the 11 students. We look closely at the differences between the students whose parents agreed to provide support for their children and the students whose parents did not attend the learning consultant team meeting. This division was a natural occurance which prompted the comparison for this study.

Results from the Mann-Whitney U one-tailed tests suggest that children whose parents provided support made greater improvements on four of the five scores than did children whose parents elected not to participate with the team. The Mann-Whitney U one-tailed tests showed significant differences for each of the five measures: STOT ($U=3$, $p<.015$), GTOT ($U=1$, $p<.004$), TR+ ($U=2$, $p<.009$), TR- ($U=2$, $p<.009$) and CCI ($U=4$, $p<.026$). Table 1 presents the mean gain scores

for the students and reveals the direction of the significant differences found.

Insert Table 1 about here

The pattern in Table 1 reveals small but significant differences in self competency (STOT), teacher ratings positive (TR+), and attitude toward school (CCI). Differences of a greater magnitude were found on peer nominations (GTOT) and teacher ratings negative (TR-). First both groups of children gained in self competency with feedback of multisource data and teacher praise (positive reinforcement), but the parent support children gained more than did the children whose parents elected not to meet with the team. Second, the children of the non-support group appeared to loose peer nominations while the other children managed to hold their own in the peer group. Third, the teacher ratings exhibit an interesting pattern: supported children remained the same for both positive and negative teacher ratings, but the non-supported children received fewer positive and many fewer negative teacher ratings. On the latter difference (TR-), it would appear that the team's request for more teacher praise worked especially well for students whose parents did not participate in the program! Fourth, attitude toward school (CCI) remained the same for the supported group, but became more negative for the non-supported group. Kifer's (1973) findings that parental support in proven student involvement in school were supported. Thus, throughout these results the need for feedback, teacher praise, and parental support takes on major importance for elementary school children.

DISCUSSION

The overall purpose of this study was to explore how an early assessment of self competency and other important classroom interaction dimensions could be integrated systematically with interventions designed to meet self competency and related needs. More specifically, the learning team investigated three

interventions—(1) feedback of self, peer, and teacher information, (2) teacher praise (positive reinforcement), and (3) parental support—on changing low self competency and related classroom interaction dimensions. The results suggest strongly that these three interventions do have influence upon students and in a desirable direction.

This study raised a host of questions which should be answered by a series of multiple treatment and multiple measure studies. For examples,

1. Which treatment alone or which combination of treatments had the greater effect on the selected students? We should see an expanded study involving several classroom in different schools.
2. How can we develop an integrated data base for recording the effectiveness of specific interventions on children with special "social learning deficits" (affective and academic adjustment problems)?
3. Would providing extensive role play and simulation experiences related to teacher praise (positive reinforcement) bring about desirable changes in students' self-competency scores, peer nominations and attitude toward school?
4. What techniques can we employ to increase parental support for behavior change projects of this type?
5. Which elements in the feedback to the individual students have the greater influence on student affective and academic performance?

This exploratory study of three interventions designed to promote self competency skills relates to the multiagent and multitreatment learning development consultant (LDC) team systems (Leibman, Goldman & Battle, 1972; Stilwell & Santoro, 1972). This LDC team system fits within a larger system for preventing affective and academic skill deficits within school districts or educational regions (Barclay, 1973b, 1973c; Stilwell, 1973). Within these systems a desirable

outcome is to be able to match in a social climate student characteristics and needs, specifiable objectives, and appropriate interventions in order to obtain desired behavioral (affective and/or academic) changes. We must spend much of our preventive efforts in the elementary schools in order to help prepare students for the changing societies of school, work, and family.

TABLE 1

MANN-WHITNEY U ONE-TAILED TEST RESULTS FOR

MEAN GAIN SCORES OF SELECTED STUDENTS

	STOT	GTOT	TR+	TR-	CCI
Parental Support	2.50	1.33	0.05	0.00	0.16
No-Parental Support	1.00	-4.40	-1.75	-4.80	-1.20
Mann-Whitney U	3	1	2	2	4
p less than	.015	.004	.009	.009	.026

NOTES

1. The cooperation of Sister Gertrude Ann Knipper, principal, and Ms. Terry Hayden, teacher, at Christ the King school is warmly acknowledged.

2. Counselor, Holding Technical Institute, Raleigh, N. C.

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5. Assistant Professor, Department of Educational Psychology and Counseling, College of Education, University of Kentucky, Lexington.

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for the students and reveals the direction of the significant differences found.

Insert Table 1 about here

The pattern in Table 1 reveals small but significant differences in self competency (STOT), teacher ratings positive (TR+), and attitude toward school (CCI). Differences of a greater magnitude were found on peer nominations (GTOT) and teacher ratings negative (TR-). First both groups of children gained in self competency with feedback of multisource data and teacher praise (positive reinforcement), but the parent support children gained more than did the children whose parents elected not to meet with the team. Second, the children of the non-support group appeared to loose peer nominations while the other children managed to hold their own in the peer group. Third, the teacher ratings exhibit an interesting pattern: supported children remained the same for both positive and negative teacher ratings, but the non-supported children received fewer positive and many fewer negative teacher ratings. On the latter difference (TR-), it would appear that the team's request for more teacher praise worked especially well for students whose parents did not participate in the program! Fourth, attitude toward school (CCI) remained the same for the supported group, but became more negative for the non-supported group. Kifer's (1973) findings that parental support in proven student involvement in school were supported. Thus, throughout these results the need for feedback, teacher praise, and parental support takes on major importance for elementary school children.

DISCUSSION

The overall purpose of this study was to explore how an early assessment of self competency and other important classroom interaction dimensions could be integrated systematically with interventions designed to meet self competency and related needs. More specifically, the learning team investigated three

interventions—(1) feedback of self, peer, and teacher information, (2) teacher praise (positive reinforcement), and (3) parental support—on changing low self competency and related classroom interaction dimensions. The results suggest strongly that these three interventions do have influence upon students and in a desirable direction.

This study raised a host of questions which should be answered by a series of multiple treatment and multiple measure studies. For examples,

1. Which treatment alone or which combination of treatments had the greater effect on the selected students? We should see an expanded study involving several classroom in different schools.
2. How can we develop an integrated data base for recording the effectiveness of specific interventions on children with special "social learning deficits" (affective and academic adjustment problems)?
3. Would providing extensive role play and simulation experiences related to teacher praise (positive reinforcement) bring about desirable changes in students' self-competency scores, peer nominations and attitude toward school?
4. What techniques can we employ to increase parental support for behavior change projects of this type?
5. Which elements in the feedback to the individual students have the greater influence on student affective and academic performance?

This exploratory study of three interventions designed to promote self competency skills relates to the multiagent and multitreatment learning development consultant (LDC) team systems (Leibman, Goldman & Battle, 1972; Stilwell & Santoro, 1972). This LDC team system fits within a larger system for preventing affective and academic skill deficits within school districts or educational regions (Barclay, 1973b, 1973c; Stilwell, 1973). Within these systems a desirable

outcome is to be able to match in a social climate student characteristics and needs, specifiable objectives, and appropriate interventions in order to obtain desired behavioral (affective and/or academic) changes. We must spend much of our preventive efforts in the elementary schools in order to help prepare students for the changing societies of school, work, and family.

TABLE 1

MANN-WHITNEY U ONE-TAILED TEST RESULTS FOR

MEAN GAIN SCORES OF SELECTED STUDENTS

	STOT	GTOT	TR+	TR-	CCI
Parental Support	2.50	1.33	0.05	0.00	0.16
No-Parental Support	1.00	-4.40	-1.75	-4.80	-1.20
Mann-Whitney U	3	1	2	2	4
p less than	.015	.004	.009	.009	.026

NOTES

1. The cooperation of Sister Gertrude Ann Knipper, principal, and Ms. Terry Hayden, teacher, at Christ the King school is warmly acknowledged.

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